

### **Area Description**

Richard Y. Yancey WMA is located between the Mississippi River and Red River in the southern portion of Concordia Parish. Compartment RR17 encompasses approximately 2,364 acres of bottomland hardwood and is located in portions of Sections 28, 29, 30, 31, 32, 33, and 46 of T3N, R7E and Sections 1, 2, 3, 4, 5, and 52 of T3N, R8E. The compartment is bounded to the north by Pat's Lake Drain, to the west by Chaney Lakes and Chaney Lake Trail, to the south by the Red River Levee, and to the east by Dobbs Bay and Dobbs Bay Road.

### **Current Conditions**

Three forest types are represented in Compartment RR17 and consist of overcup oak/ bitter pecan/ swamp privet (1,076 acres), overcup oak/ bitter pecan/ sugarberry (352 acres), and black willow/ buttonbush (580 acres). Average overstory canopy cover for this compartment is 62%. Midstory cover averages 78%, and basal area averages 77.4 ft<sup>2</sup>/ac within Compartment RR17. Overcup oak and bitter pecan sawtimber dominate the overstory with very minor amounts of sugarberry and baldcypress.

### ***Forest Types***

The *overcup oak/ bitter pecan/ swamp privet* forest type, the most prominent type in Compartment RR17, encompasses 1,076 acres, represents 53% of the tract, and is located on the middle elevation within the compartment. Under normal rainfall conditions, during winter and spring, these areas retain water. This forest type has a diverse structure of sparse and moderately stocked areas. The overstory is dominated by overcup oak and to a lesser extent bitter pecan. The lack of overstory cover in some areas within this forest type has resulted in a dense, swamp privet dominated midstory with small yet numerous patches of advanced bitter pecan and overcup oak regeneration. Due to the lower elevation in this area, and its tendency to hold water, understory vegetation is sparse. Understory species consist of poison ivy, trumpet creeper, ladies' eardrops, and climbing dogbane.

The *overcup oak/ bitter pecan/ sugarberry* forest type encompasses 352 acres and represents approximately 17% of the tract. This forest is found on the higher elevations within the compartment, specifically along the Red River Levee, and exhibits a relatively closed canopy dominated by overcup oak, sugarberry, and bitter pecan stems. Green ash, cottonwood, and honey locusts account for a small percentage of the overstory as well. The midstory consists primarily of sugarberry and swamp privet. Although the majority of this forest type has a closed canopy, some structural diversity is present in areas where the overstory is sparse. In these areas there is a well-developed midstory comprised of overcup oak, green ash, and sugarberry regeneration. The understory throughout most of this forest type is composed of poison ivy, trumpet creeper, bed straw, ladies' eardrops, climbing dogbane, and peppervine. Drought related tree mortality is most prevalent in the forest type. Nearly half of the sugarberry stems have experienced mortality due to the 2023 drought.

The black willow/ buttonbush forest type consists of 580 acres, represents 29% of the compartment, and is found on the lowest elevations within the compartment. This area is managed as a waterfowl impoundment whereas water is pumped in early November to

approximately 50% capacity. Rainfall capture brings the impoundment up to full capacity by the first week of December in most years. The overstory is composed almost entirely of black willow with minor amounts of baldcypress and water locust. A sparse midstory layer is composed of swamp privet while buttonbush dominates the understory. Canopy cover varies greatly across this forest type as black willow stocking varies from well stocked to understocked. Much of this forest type is flooded during fall, winter, and spring.

### ***Soil***

The soil types occurring in Compartment RR17 are Sharkey clay and Fausse clay. Sharkey clay, which represents the majority of the compartment, is poorly drained, frequently flooded, and highly fertile. Fausse clay is found in the lower elevations and deeper swales within this compartment, specifically associated with the waterfowl impoundment and Chaney Lakes. This soil is very poorly drained, subject to ponding, frequently flooded, and highly fertile.

### ***Wildlife***

Compartment RR17 provides habitat to several species of wildlife. White-tailed deer and small mammals benefit from the abundance of overcup oak and bitter pecan mast in the fall and winter. Small patches of sparse overstory stems and well developed midstory are especially beneficial to disturbance dependent bird species as well as providing nesting and fawning cover. Scattered large baldcypress found in Compartment RR17 provide cavities for wood ducks, squirrels, woodpeckers, and denning sites for Louisiana black bear. When parts of the overcup/ bitter pecan/ swamp privet forest type floods it provides foraging and resting habitat for resident and migratory waterfowl, as well as other woodland waterbirds. The waterfowl impoundment and woodland lakes provide habitat for wintering waterfowl and wading birds. Several rookeries can be found within Compartment RR17 including a large wood stork rookery located within the waterfowl impoundment.

### **Objectives**

- Increase herbaceous browse, escape cover, and ground nesting cover
- Develop a more complex forest structure
- Increase tree species composition
- Create areas of early successional vegetation
- Increase growth and vigor of preferred growing stock

### **Methods**

#### *Heavy thinning with Groups (373 acres)*

- Leave trees marked with two slashes of orange paint, one at eye level and one on the stump
- Boundaries marked with blue paint with paint facing treatment area
- Leave preferred growing stock
- Favor Nuttall oak, American elm, red maple, and honey locust
- Large groups (1-3 acres) to be left unmarked for harvest in low stocked areas

### **Concerns**

- Improve long term forest structure and composition
- Leave active cavities and large diameter hollow trees, protected, for cavity dwellers and Louisiana black bear

## **Treatments**

A treatment in this portion of the WMA is very important to the overall forest structure goals at the landscape scale. Therefore, the eastern portion of Compartment RR17 will receive a heavy thinning to enhance forest structure by encouraging midstory and shrub layer development as well as improving stand health. The stand will be thinned heavily, however that does not mean that a large amount of volume will actually be removed. The proposed treatment area consists of approximately 1,264 bdft per acre of sawtimber and 8.1 cords per acre of pulpwood. This volume per acre is below average when compared to the rest of the WMA, however it is the highest volume found within this portion of the WMA. The proposed thinning treatment will remove a significant proportion of volume within this stand but actual volume removed will be on the edge of what would be considered commercially viable.

By thinning both the overstory and midstory, suppressed and poor quality stems will be removed to free-up growing space for residual stems while developing a more complex understory. This method will allow for the retention of a continuous forest canopy as not to significantly deter upper-canopy nesters, however it will permit a significant amount of light to the forest floor. The primary species to be removed are overcup oak, bitter pecan, and sugarberry. Avoid removing elm, ash, locust, or persimmon unless they are of very poor quality and taking up growing space of more preferred stems. All baldcypress and any extremely large overcup which have the potential for Louisiana black bear den habitat will be retained. Thin carefully near these areas to ensure their long-term retention. Within the treatment area, group or patch harvest will be incorporated utilizing openings no less than one acres in size. These larger canopy openings will be located in areas of low stocking or areas of poor timber quality. This treatment will be utilized both to release areas of regeneration where present and to set back succession in areas consisting of low quality overstory. This treatment will provide early successional vegetation for many disturbance dependent songbirds and other wildlife, while also enhancing future forest structure and composition. The combination of thinning and utilization of larger canopy openings will provide for structurally complex forest and diverse plant community.

## **Logging Requirements**

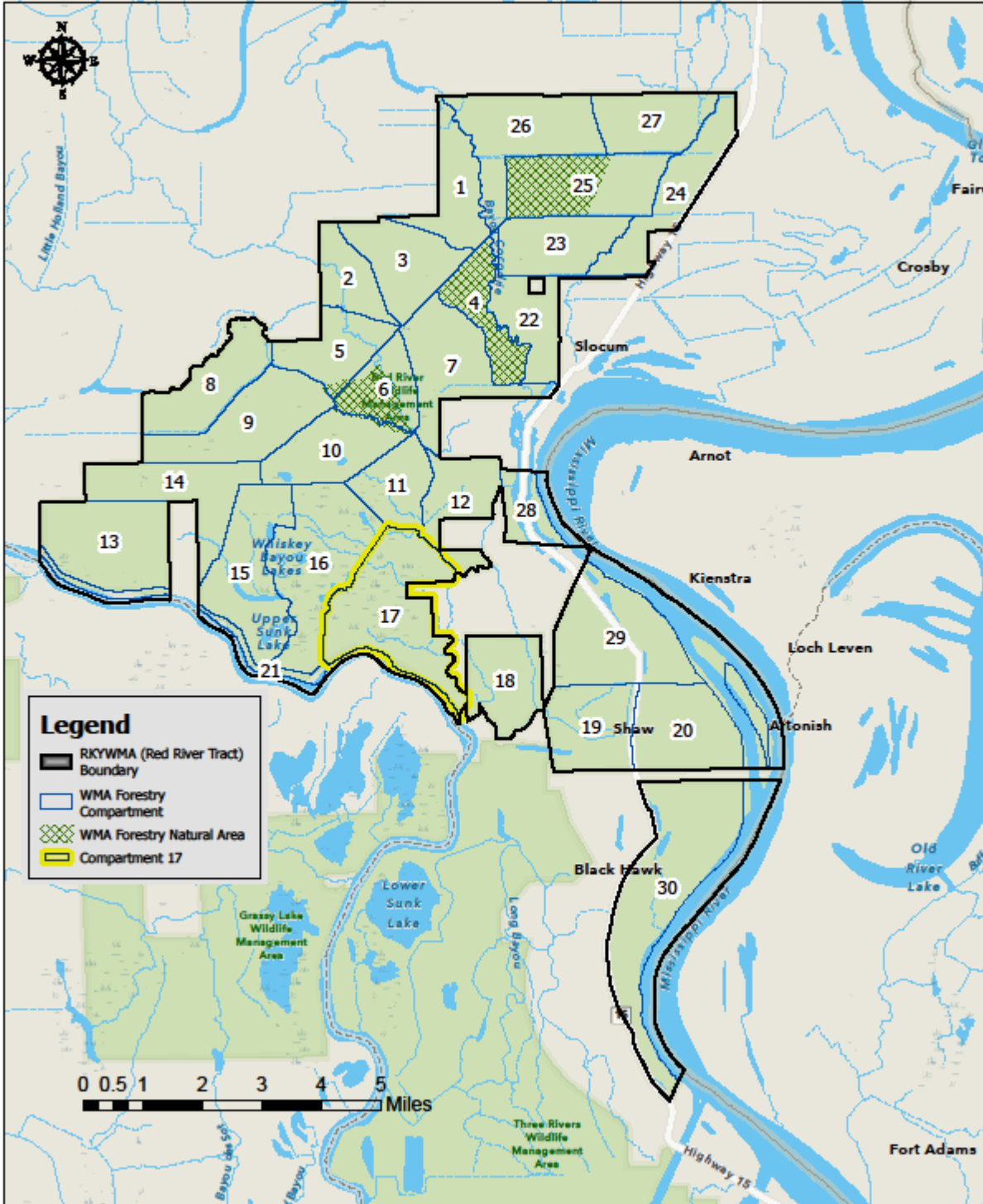
- No harvest during wet periods
- No harvesting during the firearm seasons for white-tailed deer
- All logging slash at loading sets to be redistributed throughout harvest area
- Follow Louisiana BMP guidelines at all times
- Loggers should be informed of the presence of Louisiana black bear; if operating between January and April and if a bear is seen within treatment area, the logger should leave *immediate* vicinity and contact LDWF Forester. Harvesting may continue in *immediate* vicinity of sighting only after approval from LDWF Forester.

## **Additional Entry Requirements**

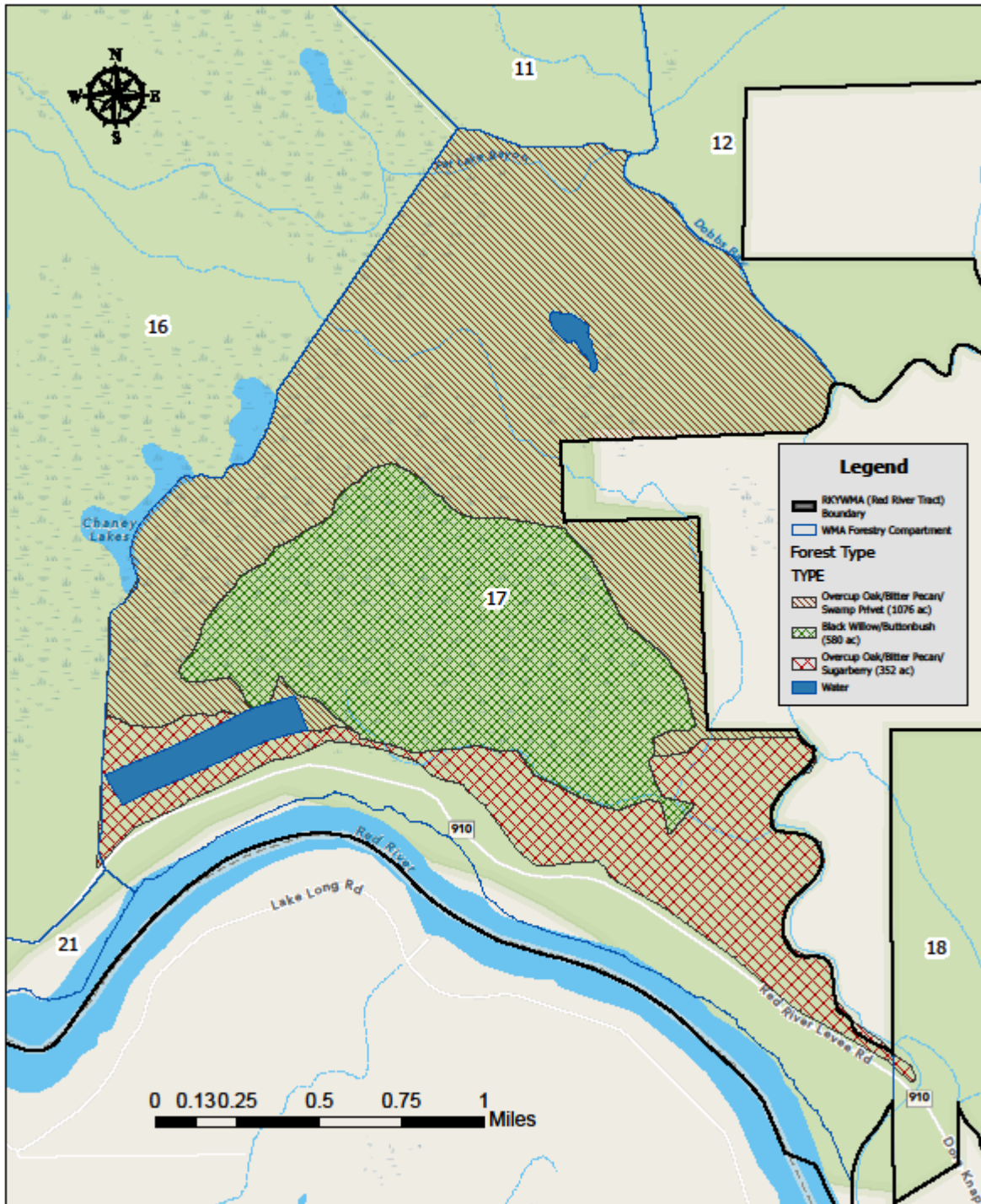
- Monitor establishment of regeneration and development of released stems

**Attached maps** (WMA, Forest Type, Treatment, and Harvest History)

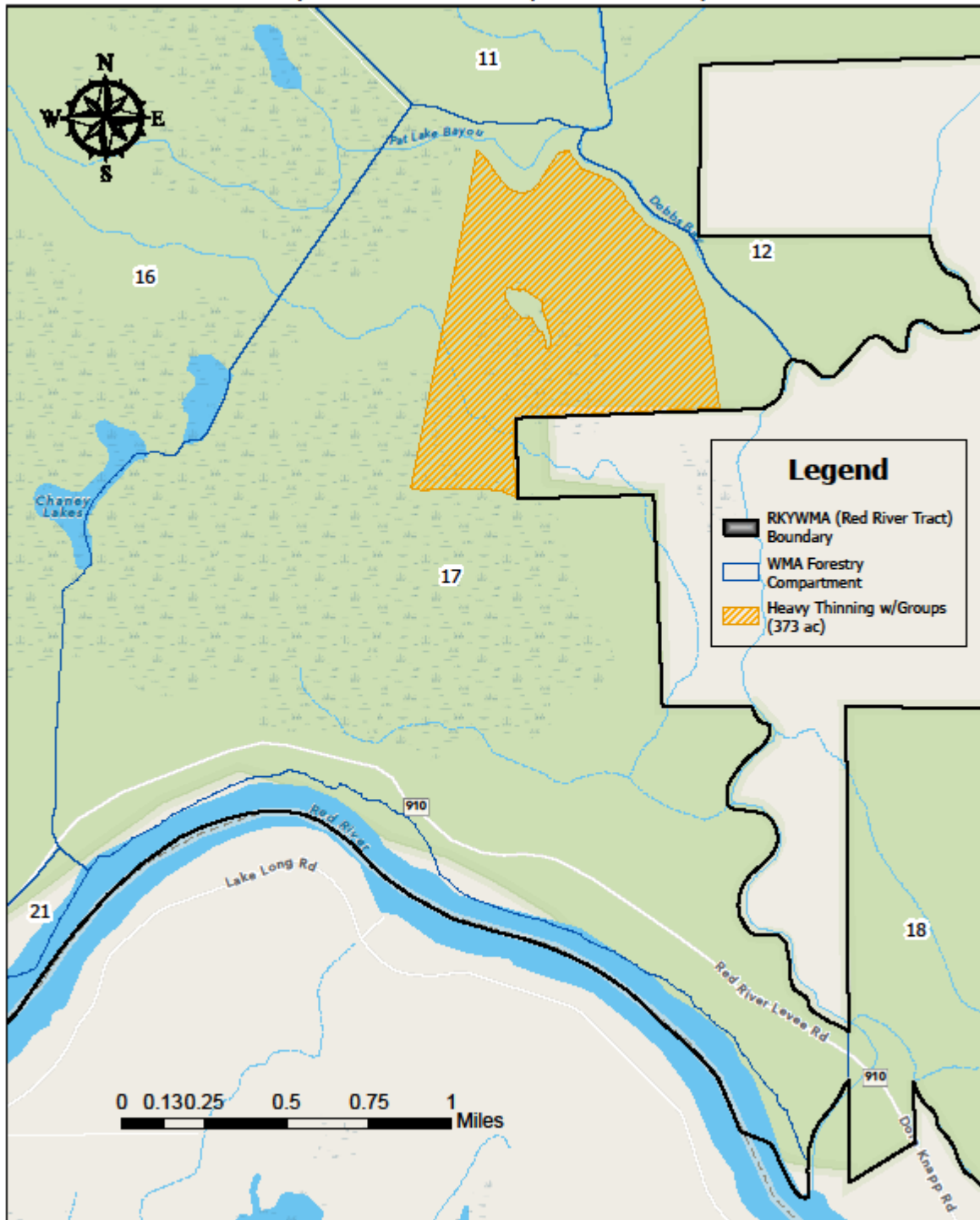
Richard K. Yancey WMA Red River Tract Forestry Compartments and Natural Area



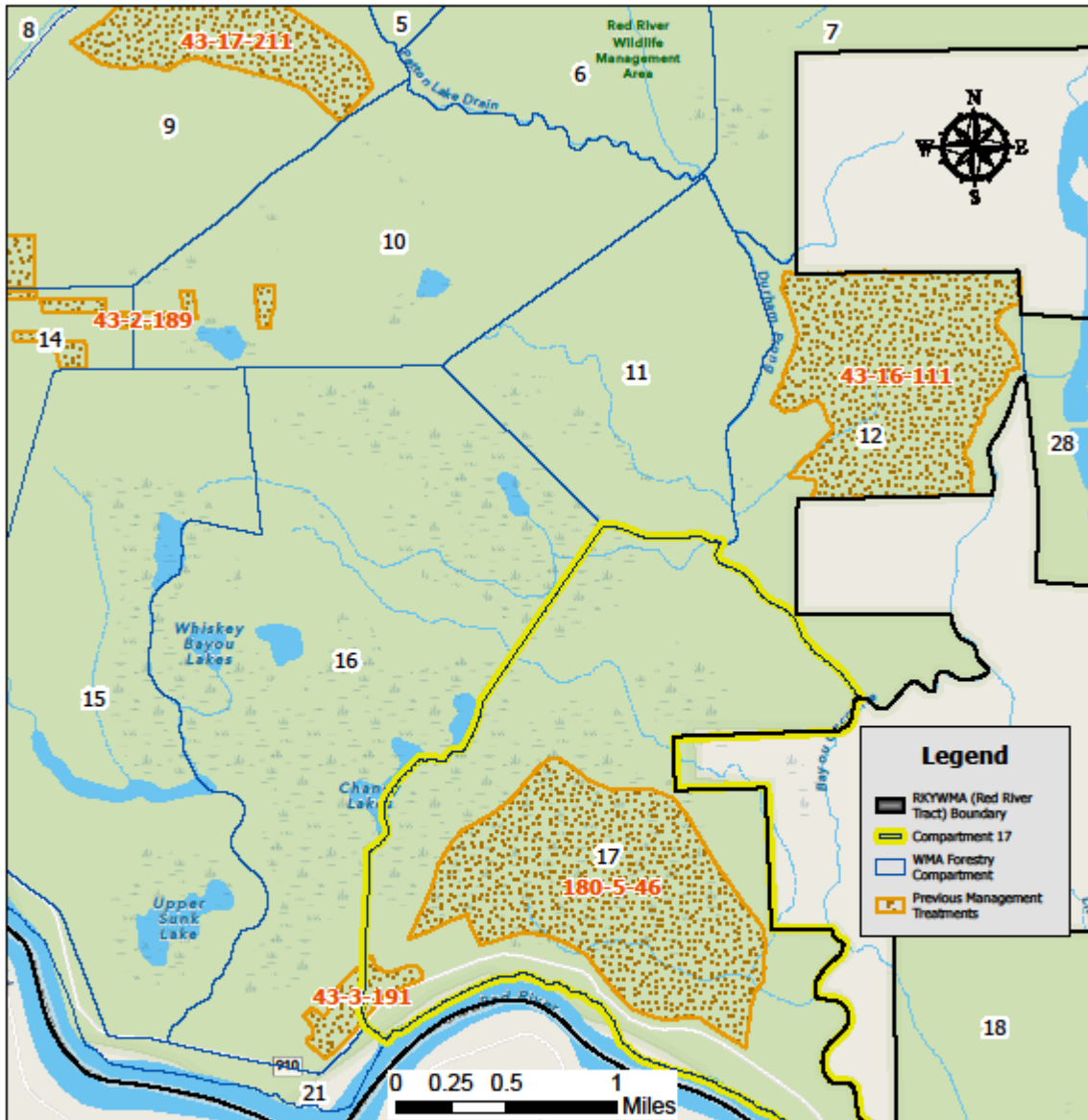
Richard K. Yancey WMA Red River Tract Compartment 17 Forest Type



Richard K. Yancey WMA Red River Compartment 17 Proposed Treatment



Richard K. Yancey WMA Red River Tract Past Treatments



sale number	treatment	acres	comments	compartment	CAL_ACRES	Year	WMA
43-2-189	clearcut	58		10,14	56	1989	Red River
43-3-191	species selection	54	cottonwood removed	16,17	59	1991	Red River
180-5-46	clearcut	680	greentree reservoir	17	702	1986	Red River
43-11-203	shelterwood	185	five separate units	8	185	2004	Red River
43-14-106	individual selection	342		5	341	2007	Red River
43-17-211	individual selection	512	two units (heavy thin, leave tree marked)	9	514	2012	Red River
43-16-111	shelterwood	600		RR 12	604	2012	Red River